



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/561,528	12/20/2005	Hiroshi Taniuchi	01272.020678.	9818

5514 7590 01/20/2011  
FITZPATRICK CELLA HARPER & SCINTO  
1290 Avenue of the Americas  
NEW YORK, NY 10104-3800

EXAMINER
----------

LEGESSE, HENOK D

ART UNIT	PAPER NUMBER
----------	--------------

2861

MAIL DATE	DELIVERY MODE
-----------	---------------

01/20/2011

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/561,528	<b>Applicant(s)</b> TANIUCHI ET AL.	
	<b>Examiner</b> HENOK LEGESSE	<b>Art Unit</b> 2861	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04 November 2010.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 26,27,29,32-37,39,40-46 is/are pending in the application.
- 4a) Of the above claim(s) 28,38 and 41-45 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 26,27,29,32-37,39,40 and 46 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. This application contains claims 28,38,41-45 drawn to an invention nonelected with traverse in the reply filed on 04/30/2010 which was subsequently discussed in the non final action mailed on 08/04/2010. A complete reply to this final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

### ***Double Patenting***

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 26,27,29,32,33,36,37,39,40 and 46 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-4,7 and 8 of U.S. Patent No. 7,661,809. Although the conflicting claims are not identical, they are not patentably distinct from each other because both the instant application and patent ('809) claimed the same subject matter with the exception of obvious limitations as follows:

**Regarding claim 26**, claims 1,4, and 8 of US patent ('809) teaches an image forming method (claim 1 line 1; claim 8 line 1) comprising the steps of:

applying a liquid (claim 1 line 3; first liquid, claim 8 line 4), for coagulating a colorant of ink, onto an intermediate transfer body having a surface to which a hydrophilic treatment, where energy (claim 4 line 4; plasma, claim 8 line 3) is applied to the surface, by applying energy has been performed (claim 1 lines 2-4; claim 8 lines 2-5);

Art Unit: 2861

forming an image by ejecting ink from an ink jet head onto the intermediate transfer body on which the liquid has been applied (claim 1 lines 5-6; claim 8 lines 6-7); and

transferring the image formed on the intermediate transfer body to a recording medium (claim 1 lines 10-12; claim 8 lines 11-13).

**Regarding claim 27**, claim 2 of US patent ('809) teaches wherein the surface of the intermediate transfer body contains at least one of a fluorine compound and a silicone compound (claim 2).

**Regarding claim 29**, claims 7,8 of US patent ('809) teaches wherein the hydrophilic treatment comprises plasma processing (claim 7; claim 8 lines 3-4).

**Regarding claim 32**, claims 1,3 of US patent ('809) teaches wherein the liquid contains metal ions as a component for coagulating the colorant (claim 1 lines 3-4, claim 3).

**Regarding claim 33**, claim 4 of US patent ('809) teaches further comprising a step of applying a wettability improving liquid, for improving the wettability of the surface of the intermediate transfer body, prior to applying the liquid (claim 4).

**Regarding claim 46**, claims 1, 8 of US patent ('809) teaches further comprising a step of performing the hydrophilic treatment to the surface of the intermediate transfer body (claim 1 lines 2-3, claim 8 lines 2-4).

**Regarding claim 36**, claims 1, 7, and 8 of US patent ('809) teaches an image forming method (claim 1 line 1; claim 8 line 1) comprising the steps of:

performing plasma processing (claim 7; claim 8 line 3) to a surface of an intermediate transfer body to make the surface hydrophilic (claim 1 lines 2-3; claim 7; claim 8 lines 2-4);

applying a liquid (claim 1 line 3; first liquid, claim 8 line 4), for coagulating a colorant of ink, onto the intermediate transfer body having the surface to which the plasma processing has been performed (claim 1 lines 2-4; claim 7; claim 8 lines 2-5);

forming an image by ejecting ink from an ink jet head onto the intermediate transfer body on which the liquid has been applied (claim 1 lines 5-6; claim 8 lines 6-7); and

transferring the image formed on the intermediate transfer body to a recording medium (claim 1 lines 10-12; claim 8 lines 11-13).

**Regarding claim 37**, claims 1,2, 7, and 8 of US patent ('809) teaches an image forming method (claim 1 line 1; claim 8 line 1) comprising the steps of:

performing plasma processing (claim 7; claim 8 line 3) to a surface of an intermediate transfer body, the surface containing at least one of fluororubber

Art Unit: 2861

and silicone rubber (claim 2), to make the surface hydrophilic (claim 1 lines 2-3; claim 7; claim 8 lines 2-4);

applying a liquid (claim 1 line 3; first liquid, claim 8 line 4), for coagulating a colorant of ink, onto the intermediate transfer body having the surface to which the plasma processing has been performed (claim 1 lines 2-4; claim 7; claim 8 lines 2-5);

forming an image by ejecting ink from an ink jet head onto the intermediate transfer body on which the liquid has been applied (claim 1 lines 5-6; claim 8 lines 6-7); and

transferring the image formed on the intermediate transfer body to a recording medium (claim 1 lines 10-12; claim 8 lines 11-13).

**Regarding claim 39**, claims 1,2, 7, and 8 of US patent ('809) teaches an image forming method (claim 1 line 1; claim 8 line 1) comprising the steps of:

applying a liquid (claim 1 line 3; first liquid, claim 8 line 4), for coagulating a colorant of ink, onto an intermediate transfer body to which a hydrophilic treatment by plasma processing (claim 7; claim 8 line 3) has been performed (claim 1 lines 2-4; claim 7; claim 8 lines 2-5);

forming an image by ejecting ink from an ink jet head onto the intermediate transfer body on which the liquid has been applied (claim 1 lines 5-6; claim 8 lines 6-7); and

transferring the image formed on the intermediate transfer body to a recording medium (claim 1 lines 10-12; claim 8 lines 11-13).

**Regarding claim 40**, claim 2 of US patent ('809) teaches wherein the surface contains at least one of fluororubber and silicone rubber (claim 2).

4. Claims 34 and 35 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 and 8 of U.S. Patent No. 7,661,809 in view of Komatsu et al. (US 6,059,407).

**Regarding claim 34**, US patent ('809) claimed substantially all the claimed inventions including the intermediate transfer body, the recording medium and step of hydrophilic treatment. But, US patent ('809) failed to explicitly claim a step of promoting a removal of water from the ink on the intermediate transfer body prior to transferring the image to the recording medium.

However, Komatsu et al teaches step of promoting a removal of water from the ink on the intermediate transfer body prior to transferring the image to the recording medium (using heater 7 in figs.5,6).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include drying step (use heater 7) in the claimed image forming method of US patent ('809) based on the teachings of Komatsu et al in order to improve the image quality that is being transferred to the recording medium.



**Regarding claim 35,** Komatsu et al further teaches step of cleaning the surface of the intermediate transfer body (using cleaning element 52 in fig.4).

5. Claims 26, 29, 36, 39 and 46 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1,3,6 and 7 of U.S. Patent No. 7,419,257. Although the conflicting claims are not identical, they are not patentably distinct from each other because both the instant application and patent ('257) claimed the same subject matter with the exception of obvious limitations as follows:

**Regarding claim 26,** claims 1,3, 6 and 7 of US patent ('257) teaches an image forming method (claim 1, line 1; claim 6 line 1; claim 7 line 1) comprising the steps of:

applying a liquid (claim 1,line 2; claim 6 line 2;claim 7 line 2), for coagulating a colorant of ink (claim 3;claim 6 line 3; claim 7 line 3), onto an intermediate transfer body having a surface to which a hydrophilic treatment, where energy (plasma, claim 1,line 5; claim 6 line 5;claim 7 line 6) is applied to the surface, by applying energy has been performed (claim 1,lines 2-6; claim 6 lines 2-5;claim 7 lines 2-6);

forming an image by ejecting ink from an ink jet head onto the intermediate transfer body on which the liquid has been applied (claim 1,lines 7-9; claim 6 lines 6-8;claim 7 lines 7-9); and

transferring the image formed on the intermediate transfer body to a recording medium (claim 1, lines 10-11; claim 6 lines 12-13; claim 7 lines 10-11).

**Regarding claim 29**, claims 1, 6 and 7 of US patent ('257) teaches an image forming method according to claim 26, wherein the hydrophilic treatment comprises plasma processing (claim 1, line 5; claim 6 line 5; claim 7 line 6).

**Regarding claim 46**, claims 1, 6 and 7 of US patent ('257) teaches an image forming method according to Claim 26, further comprising a step of performing the hydrophilic treatment to the surface of the intermediate transfer body (claim 1, lines 2-6; claim 6 lines 2-5; claim 7 lines 2-6).

**Regarding claim 36**, claims 1, 3, 6 and 7 of US patent 7,419,257 an image forming method (claim 1, line 1; claim 6 line 1; claim 7 line 1) comprising the steps of:

performing plasma processing (plasma treatment, claim 1, line 5; claim 6 line 5; claim 7 line 6) to a surface of an intermediate transfer body to make the surface hydrophilic (claim 1, lines 4-6; claim 6 lines 3-5; claim 7 lines 4-6);

applying a liquid, for coagulating a colorant of ink (claim 3; claim 6 line 3; claim 7 line 3), onto the intermediate transfer body having the surface to which the plasma processing has been performed (claim 1, lines 2-6; claim 6 lines 2-5; claim 7 lines 2-6);

forming an image by ejecting ink from an ink jet head onto the intermediate transfer body on which the liquid has been applied(claim 1,lines 7-9; claim 6 lines 6-8;claim 7 lines 7-9); and

transferring the image formed on the intermediate transfer body to a recording medium (claim 1,lines 10-11; claim 6 lines 12-13;claim 7 lines 10-11).

**Regarding claim 39**, claims 1,3, 6 and 7 of US patent 7,419,257 an image forming method (claim 1, line 1; claim 6 line 1; claim 7 line 1) comprising the steps of:

applying a liquid (claim 1,line 2; claim 6 line 2;claim 7 line 2), for coagulating a colorant of ink (claim 3;claim 6 line 3; claim 7 line 3), onto an intermediate transfer body to which a hydrophilic treatment (claim 1, line 5; claim 6 line 5; claim 7 line 6) by plasma processing has been performed (claim 1,lines 2-6; claim 6 lines 2-5;claim 7 lines 2-6);

forming an image by ejecting ink from an ink jet head onto the intermediate transfer body on which the liquid has been applied (claim 1,lines 7-9; claim 6 lines 6-8;claim 7 lines 7-9); and

transferring the image formed on the intermediate transfer body to a recording medium (claim 1, lines 10-11; claim 6 lines 12-13; claim 7 lines 10-11).

### ***Response to Arguments***

6. Applicant's arguments with respect to claims 26,27,29,32-37,39,40 and 46 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HENOK LEGESSE whose telephone number is (571)270-1615. The examiner can normally be reached on Mon.- Fri. Between. 8:00 AM-6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MATTHEW LUU can be reached on (571)272-7663. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2861

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/MATTHEW LUU/  
Supervisory Patent Examiner, Art  
Unit 2861

H.L.  
January 12, 2011